



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/815,345	03/23/2001	Byung-in Ma	1293.1197	4409

21171 7590 06/16/2005

STAAS & HALSEY LLP  
SUITE 700  
1201 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER

PATEL, GAUTAM

ART UNIT PAPER NUMBER

2655

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/815,345

Applicant(s)

MA ET AL.

Examiner

Gautam R. Patel

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-36 and 42 is/are allowed.
- 6) ☒ Claim(s) 37-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### Response to Amendment

1. This is in response to amendment filed on 3-21-05.
2. Claims 1-42 remain for examination.

### NOTES & REMARKS

3. A phone call was made to Mr. James McEwen on 6-6-05 and pointed out that if claims 37-41 were to be cancelled rest of claims may be allowed. However Mr. McEwen informed the Examiner on 6-10-05 that the Applicants have decided not to cancel the claims.
4. Applicant's arguments regarding rejection of claims 1-5, 8-9, 16-18 and 42 under 35 U.S.C. § 112 first & second paragraph have been fully considered and rejection of claims 1-5, 8-9, 16-18 and 42 under 35 U.S.C. 112 first & second paragraph has been withdrawn.

### Claim Rejections - 35 U.S.C. § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 37-41 are rejected under 35 U.S.C. § 102(e) as being anticipated by AAPA (applicants Admitted Prior Art).

As to claim 37, AAPA discloses the invention as claimed [see Figs. 1-2], including a light dividing unit, a first optical detector, a second optical detector and a signal processing portion comprising steps of:

splitting a light beam into a main beam and a sub-beam [fig. 1, Bs1] disposed to be focused on an optical disk with the main beam in a line incident on a common track of an optical disk, where the sub-beam further comprises an optical aberration [specification page 1, paragraph 2] not disposed in the line and incident off of the common track [pages 1-3; and fig. 1-2];

reflecting the main beam and sub-beam off the optical [pages 1-3; and fig. 1-2]; and

generating the seek direction detecting signal based upon the reflected main beam and sub-beam [pages 1-3; and fig. 1-2].

6. As to claim 38, AAPA discloses:

generating a track cross signal based upon the reflected sub-beam;

generating a track cross signal based upon the reflected main beam; and

generating a seek direction detecting signal based upon the track cross signal and track error signal [pages 1-3; and fig. 1-2].

7. As to claim 39, AAPA discloses:

The track cross signal is generated without the reflected main beam [pages 1-3; and fig. 1-2].

8. As to claim 40, it is an apparatus claim corresponding to the method of claim 37, and is therefore rejected for similar reasons set forth in the rejection of claim 37, *supra*.

9. As to claim 41, it is an apparatus claim corresponding to the method of claim 37 to 39, and is therefore rejected for similar reasons set forth in the rejection of claim 37 to 39, *supra*.

10. Applicant's arguments filed on 3-21-05 have been fully considered but they are not deemed to be persuasive for the following reasons.

In the REMARKS, the Applicant argues as follows:

A) That: "However, there is no disclosure or suggestion of an aberration for either of the two sub beams Bs1, Bs2, or of a placement for such an aberration relative to the track and sub beams Bs1, Bs2." [page 16, paragraph 3; REMARKS].

FIRST: The examiner would like to direct attention of the Applicants to paragraph 0002 of the specification on page 1. It clearly states that "an apparatus to generate a seek direction detecting signal for an optical pickup using a main beam and a sub-beam having a predetermined aberration in a radial direction."

SECOND: Since both the main beam and sub-beam [partially] are reflecting from the same track that satisfies the condition of "common track". As to "not disposed in the line", it should be pointed out that sub-beam is not disposed exactly on the line but slightly off-line from the main beam.

NOTE: As to the arguments for the rest of claims they are moot in light of the amendments that were presented and different rejection because of that.

### **ALLOWABLE SUBJECT MATTER**

11. Claims 1-36 and 42 are allowed over the prior art of record.
12. Applicant's amendment necessitated the new grounds of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

### **Contact Information**

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is 571-272-7625. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2650) where this application or proceeding is assigned is 703-872-9306.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Wayne Young can be reached on (571) 272-7582.

Any inquiry of a general nature or relating to the status of this application should be directed to the Electronic Business Center whose telephone number is 866-217-9197 or the USPTO contact Center telephone number is (800) PTO-9199.

Gautam R. Patel  
Primary Examiner  
Group Art Unit 2655



**GAUTAM R. PATEL**  
**PRIMARY EXAMINER**

June 13, 2005